

Nancy Beatriz Leáñez
María Susana Waasaf
Universidad Nacional de San Juan
alvo@sinectis.com.ar
manawa@infovia.com.ar

EXPLORING THE PERCEPTION AND PRODUCTION OF WEAK AND STRONG FORMS IN ENGLISH

Abstract: As teachers of English Phonetics and Phonology we have perceived that our students -Spanish-speakers- face a number of difficulties when dealing with the perception and production of reduced forms of structure words.

Consequently, we evaluated our students' perception and production of weak and strong forms using a listening and a speaking test after first year students at Facultad de Filosofía, Humanidades y Artes, Universidad Nacional de San Juan (UNSJ), had been exposed to a period of systematic training in these forms.

In order to gather the data we used two types of tests: a perception test and a production test. Overall the results seem to conform to our assumption: students kept on having more difficulties in the perception and production of the weak forms of structure words than of the strong forms, even after having been exposed to explicit instruction.

Keywords: English – weak forms – strong forms – perception – production

Resumen: Como profesoras de Fonética y Fonología Inglesa hemos percibido que nuestros alumnos –hispano-hablantes- enfrentan una serie de dificultades en relación con la percepción y producción de las formas débiles de las palabras estructurales.

En consecuencia, evaluamos la percepción y producción de las formas débiles y fuertes en nuestros alumnos, a través de una prueba de escucha y otra de habla, una vez que los estudiantes de primer año de la Facultad de Filosofía, Humanidades y Artes, Universidad Nacional de San Juan (UNSJ), habían finalizado el período de entrenamiento en estas formas.

Para la recolección de datos utilizamos dos tipos de tests: uno de percepción y otro de producción. En general, los resultados corroboraron nuestra percepción: los alumnos continuaron teniendo mayor dificultad en la percepción y producción de las formas débiles de las palabras estructurales que en la de las formas fuertes, aún después de haber estado expuestos al entrenamiento explícito.

Palabras clave: inglés – formas débiles – formas fuertes – percepción - producción

EXPLORING THE PERCEPTION AND PRODUCTION OF WEAK AND STRONG FORMS IN ENGLISH

1. INTRODUCTION

As teachers of English Phonetics and Phonology we have always been concerned about our students' pronunciation and how to improve it. We have always wondered what we might do to help them achieve a high level of oral performance. In this respect, and restricting the scope to pronunciation, we have perceived that our students consistently face a number of difficulties when dealing with the perception and production of weak forms, a problem which is shared by all Spanish-speaking learners (Stockwell & Bowen, 1969; Quilis y Fernández, 1979; Avery and Ehrlich, 1992; Ortiz Lira, H., 1997, among others). We believe that these forms are crucial to better not only our students' understanding of connected speech but also the intelligibility of the language they produce. Consequently, we set out to investigate whether focused instruction aimed at helping learners cope with the use of weak forms resulted in perceptible improvement in our first year students' oral performance once the period of instruction was over.

2. SOME THEORETICAL CONSIDERATIONS

Weak forms are an essential feature of English pronunciation in everyday speech. The words which often receive weak pronunciations are function or structural words (i.e. words that express grammatical relationships). They are generally unstressed,

as opposed to content words (i.e. words that carry information), which tend to receive greater prominence in an utterance. Structural items, such as prepositions, pronouns, anomalous finites, conjunctions and some adjectival words, may have two pronunciations: a strong form and a weak form. The use of either form depends upon three factors: accent, position and phonetic environment (Ortiz Lira, 1997: 25). Function words may exhibit different forms of reduction: a) loss of initial consonant, as in the pronoun *him*, the adjective *his* or the anomalous finite *have*, when not initial, for example: *Give him his book*; b) loss of final consonant sounds, as in the conjunction *and*, in the phrase *fish and chips*; and c) weakening of the unstressed internal vowels to /ə/, as in the preposition *for* in: *Thanks for doing it*. Vowel reduction plays an important role in the resulting rhythm of connected speech in English. In Underhill's view "The appropriate use of weak forms is essential to smooth and rhythmical speaking, to clarity of prominent and non-prominent syllables, and so to clarity of meaning" (1994: 64).

Present studies in the field of Phonetics and Phonology offer opposing views on the teachability and learnability of this aspect of the English language. On the one hand, some phoneticians -Ortiz Lira (1997), Underhill (1994), Celce Murcia et al. (1996), among others- maintain that mastery of weak forms is crucial not only to understand but also to produce connected speech effectively and appropriately. Failure to produce them will prevent the listener from focusing on the more meaningful words of the message. In this sense, Kenworthy (1987: 79) observes that

Not only should learners be able to cope with the weak forms they hear, they must use them when speaking English. If they do not, their speech will present listeners with a surfeit of full vowels (which will make word recognition difficult) and with a surplus of stressed forms (which may make it very difficult for the listener to find his or her way through the message and identify points of focus)

On the other hand, other phoneticians seem to reject this assertion and advocate that some features of connected speech are worth working on only for perception. Jenkins (2000: 148), in her *lingua franca core* (LFC)¹ for English as an International Language (EIL), states that

[...] weak forms are not omitted altogether, but are adapted for EIL use, and this may be a more suitable approach for learners who themselves wish to teach English [...] These learners will still need to work on weak forms (in their traditional sense) receptively in the classroom, whatever approach is adopted for production [...].

In our experience, students at teacher training level should not only be aware of the existence of these forms so as to better attune their ears to the English rhythm but also to be exposed to many and varied opportunities to produce them, with the purpose of improving both their perceptive and productive skills. In this respect, we adhere to Pennington's position (1994: 98) when she states that

In the acquisition of an L2 sound system, the successful learner must adjust both the perceptual targets and the motor programs for speech production to the values required for nativelike performance. During the course of acquisition, as the learner attempts to make the appropriate adjustments, perception relates to production in different ways and constrains it to different degrees.

¹ The 'Lingua Franca Core' proposed by Jenkins is "a pedagogical core of phonological intelligibility for speakers of EIL (English as an International Language) [...] prioritizing those pronunciation features identified in my interlanguage talk (ILT) data [...] as impeding mutual intelligibility." (pp. 123)

In addition, she goes on to assert that “the relationship between phonological production and perception is neither a simple, bidirectional, causal relationship nor a one-to-one correspondence of proficiencies” (Pennington, 1994: 98).

3. STUDY DESIGN

3.1. Objective

To evaluate the students' perception and production of weak and strong forms using a listening measure and a speaking measure, after the period of tuition.

3.2. Population

The population investigated was made up of twelve male and female students, all around twenty years old, who participated on a volunteer basis. They were attending their first year at Teacher Training College, Facultad de Filosofía, Humanidades y Artes, UNSJ. They are all from San Juan, a monolingual community, and Spanish is their mother tongue.

3.3. Instruments for data collection

Just as there are two sides to pronunciation teaching, that is, the teaching of productive skills and the teaching of receptive skills (Kelly, 2000), there are also two sides to the assessment of the outcomes of the teaching-learning process. With this idea in mind and in order to obtain a measure of each learner's command of the perception and production of strong and weak forms, we devised and used two kinds of closely interrelated tests (described below in 4.1 and 4.2) which focused on the material that had been previously taught within the context of the Introduction to Phonology course.

In order to gather the performance data we used: a) a perception test, which included a listening and discrimination task and a cloze exercise, and b) a production test in which students were asked to read a text aloud –the most suitable technique applicable to the elicitation of interlanguage phonology data-, and then to retell it. Both parts were carried out during class time in the language laboratory so as to guarantee high quality of the recorded material in the listening phase as well as in the production phase.

4. ANALYSIS AND RESULTS

Once the tests were administered, the elicited data were evaluated taking into account the two skills being assessed: perception and production.

4.1. Perception

Listening is an active process, since the listener has to construct the message. Underwood (1996) distinguishes three stages in the aural

reception of an utterance: first, the sounds get into the echoic memory and are organized into meaningful units; in the second stage, the short-term memory processes the information, relating it to the knowledge stored in the long-term memory so as to grasp the meaning; and, in the third stage, once the meaning has been constructed, it is sent to the long-term memory for later use.

The test of perception provided us with information about the students' ability to perceive reduced speech in spoken English; in other words, we wanted to test if our students' had stores these qualitative and quantitative patterns in the long-term memory. The information obtained from the analysis of the data was organized in a scoring matrix of a two-point scale where one point (1) was awarded for correctness of perception of either strong or weak forms, and zero point (0) was awarded for incorrect perceptions.

The first exercise served to ascertain the students' ability to perceive the distinction between weak and strong forms through minimal-pair discrimination. This type of activity is valid because failure to recognize the appropriate form may lead to misunderstanding of the spoken message. The reduced forms included pronouns, anomalous finites and prepositions embedded in different sentence contexts: initial, medial or final. As students listened to the ten recorded sentences (O'Connor & Fletcher, 1989), they were expected to circle the alternative used by the speaker on the recording. It is necessary to point out that some of the choices contained more than one reduced form. The set of ten sentences exhibited fifteen structural items, three of them produced in the strong version and the remaining twelve pronounced weakly. Given that twelve subjects took part in this study, we got a total number of 180 occurrences of structural items: 36 strong forms and 144 weak forms. The strong items were correctly perceived in almost all the cases, 97,2%, while the percentage for the perception of weak forms decreased to 71,5%, which shows a marked difference of 26% between the perception of both forms (Table 1). This last figure shows that most of the students' difficulties in this activity were

related to the perception of reduced forms rather than that of full forms. Even when the results were satisfactory –if we consider the percentages attained–, they illustrate the kind of words that are likely to cause problems to our students –Spanish speakers– who were not altogether sensitised to the perception of phonetic differences even when the activity was highly structured.

	Weak Forms		Strong Forms	
	0	1	0	1
Total	41	103	1	35
Percentages	28,5%	71,5%	2,8%	97,2%

Table 1. Percentages of correct and incorrect perception of weak and strong forms in minimal pair sentences.

References: 0 - incorrect; 1 - correct

The other exercise that focused on the listening skill was a cloze test in which function words belonging to different grammatical categories had been deleted. Students were expected to transcribe phonemically the target forms presented on the tape. The text, chosen from a pronunciation book (Hewings & Goldstein, 1998), had been especially designed for the purpose of checking the perception of the structural items which had been omitted. There is some value in this type of exercise because it helps learners to develop awareness of some features of spoken English that are difficult for them to hear such as unstressed function words in natural speech. The recorded conversation contained 27 function words (pronouns, prepositions, anomalous finites and adjectival words) out of which 14 items were produced in the weak form and the rest were pronounced in the strong form. Considering the total number of subjects who took part in this study, we obtained 324 occurrences of function words: 168 in their weak version and 156 in their strong form (Table 2).

	Weak Forms		Strong Forms	
	0	1	0	1
Total	43	125	42	114
Percentages	25,6%	74,4%	27%	73%

Table 2. Percentages of correct and incorrect perception of weak and strong forms in a dialogue.

References: 0 - incorrect; 1- correct

The results of this listening activity reflect that the percentages of correct perception of weak and strong forms were practically the same: 74,4% and 73%, respectively. These rates, as opposed to the ones found in the first exercise (minimal pairs), provide evidence that students were better able to perceive the distinction between full and reduced forms when they were exposed to a more structured activity. We may venture that the reason for these findings lies in the fact that the highly controlled practice provided by the minimal pairs helped the learners distinguish the appropriate forms.

4.2 Production

The test of production which focused on the features analysed consisted of two types of spoken samples: a) a sample of the learner reading aloud and b) a sample of the learners' speech. Reading aloud is considered a suitable technique when measuring mechanical skills of language production such as pronunciation (Underhill, 1989). This activity makes the learners focus exclusively on form; while speaking makes it them focus primarily on meaning. These two task types complement each other as Celce-Murcia et al. (1996: 346) observe: "[...] reading aloud does not provide the most natural evidence of a speaker's pronunciation, it is also essential to obtain a more

spontaneous sample of spoken English.” They also state that the speech sample allows to confirm or to reassess the impressions gained from the analysis of the reading tasks.

Both these tokens of spoken language were recorded in the laboratory for the sake of acoustic clarity. Brown and Yule (1984) state that one of the advantages of having the recorded version of the students’ performance is the possibility of carrying out an error-based scoring in a consistent and thorough way for all the students. It seems “a monumental task” (Brown & Yule, 1984: 105) to assess the pronunciation features being analysed without a record of the students’ spoken production. The recording can be used to keep evidence of the students’ pronunciation, check it over as many times as needed and compare the judgement made by different assessors.

The information obtained from the analysis of the recorded data was organized in a scoring matrix of a two-point scale, where one point (1) was awarded for correctness of pronunciation of either strong or weak forms of function words, and zero point (0) was awarded for incorrect renderings.

For the reading task learners were asked to read aloud an anecdote of about 150 words. They were all given the same text so as to guarantee complete standardisation of what each learner read and greater reliability of scores. Before being recorded they were allowed some minutes to rehearse the passage in order to avoid an

	Weak Forms		Strong Forms	
	0	1	0	1
Total	64	236	7	53
Percentages	21,3%	78,7%	11,7%	88,3%

Table 3. Percentages of correct and incorrect renderings of weak and strong forms in reading.

References: 0 - incorrect; 1- correct

unnatural reading flow. This preparation phase is important as it not only gives learners time to familiarize themselves with the text but it also allows them to focus on different pronunciation features and monitor their own production (Celce-Murcia et al., 1996).

After analyzing the verbal data collected from the twelve test-takers, we identified 360 occurrences of structural items of which 300 were expected to be weakly pronounced (taking into account the factors already mentioned on page 4) and only 60 were to be strongly produced. The weak forms which appeared in the text included all the categories of grammatical words that may undergo reduction (prepositions, pronouns, anomalous finites, conjunctions and some adjectival words). When we computed the frequency for reduced forms we registered 78,7% of correct renderings, while the examination of the frequency for strong forms –which presented only two categories: negative anomalous finites and an adjectival word – rose to 88,3% (Table 3). These results suggest that this type of activity presents a higher rate of errors in the production of weak forms rather than strong forms.

For the speech sample the students were asked to recall the anecdote they had read previously and to retell it. They were also allotted a few minutes to recall the information and put words together to create meaningful speech. Retelling an anecdote from a written stimulus might be considered an authentic activity because it necessarily involves comprehension and processing skills in addition to speaking skills (Underhill, 1989). When analysing the subjects' rendering in this activity, the total number of structure words produced by the twelve students amounted to 338 occurrences of which 304 were expected to be weakly produced (taking into account the factors already mentioned on page 4) and 34 to have a strong pronunciation.

When assessing the subjects' actual performance we observed that out of the expected pronunciations of weak and strong forms, we registered: 73,7% (224 instances) of correct weak forms and 88,2% (30) of correct strong forms (Table 4).

	Weak Forms		Strong Forms	
	0	1	0	1
Total	80	224	4	30
Percentages	26,3%	73,7%	11,8%	88,2%

Table 4. Percentages of correct and incorrect renderings of weak and strong forms in speaking.

References: 0 - incorrect; 1- correct.

These findings reflect the same tendency that was observed previously in the reading aloud activity. Once more, it can be observed that the percentage of correctly produced strong forms is higher than the percentage registered for the correct rendering of weak forms. This suggests that students found it more difficult to use weak forms than strong forms when producing relatively spontaneous speech. In fact, this task showed a greater difference (15%) between correct pronunciations of full and reduced forms.

If we compare the scores obtained in the two activities included in the productive phase –reading aloud and speaking– it can be stated that the former shows a slightly higher percentage of correctness of weak forms, a fact which, might be attributed to the nature of the activity which requires students to concentrate more on form than on meaning, as already observed.

When contrasting the results obtained for both skills –perception and production–, it is clear that the same tendency emerges in all the activities performed by the students: even though the levels of achievement reached by the learners when dealing with perception and production of weak forms were acceptable, it was in the strong forms that the highest percentages of correctness were reached. We believe that these findings may be related to the difficulty that Spanish speakers face when dealing with vowel reduction in function words, probably due to the absence of this process in their mother tongue.

5. CONCLUSION

This study has focused on the students' perception and production of weak and strong forms of function words. We collected and then analyzed data related to this feature in an attempt to determine whether these forms had been learnt after a period of tuition. The results derived directly from the data analysis should be treated with caution, as they are representative of only a small sample of the total population of students. Nevertheless, this study does provide some insights about this phenomenon in the context examined.

All in all, upon examining the empirical data collected from the two experimental situations –perception and production–, we can say there is evidence that the frequency of occurrence of errors in weak forms is almost always higher than the error rates in strong forms. As regards listening, there was a greater difference (26%) between the percentages of correct perception of weak and strong forms when learners were exposed to a very structured situation like the minimal pair discrimination than in the cloze test where the percentages of correctness were almost even. With respect to speaking, there seems to be a greater difference in the percentage of correct renderings of weak and strong forms when speaking (15%) than when reading (10%).

These findings corroborate to some extent our initial assumption about students' difficulties to cope with the perception and production of weak forms. As regards the first skill, listening, the results provide evidence that our learners were better able to perceive the distinction between full and reduced forms when exposed to a more controlled activity. With respect to second skill, speaking, the reported results show that it was more difficult for our students to use the reduced forms when producing relatively spontaneous speech.

These conclusions highlight the students' need for a greater amount of exposure and speaking practice to give them the perceptual and productive input necessary to develop and establish

the target pronunciation patterns examined. In other words, the results displayed call for the implementation of a remediation program that includes self-directed activities so as to raise students' awareness of this problem. These activities should provide intensive training in both skills, listening and speaking, moving from focused practice to more communicative activities.

It would be worth conducting further studies on this feature of spoken language to be able to extend these results to a larger population of EFL learners.

REFERENCES

Avery, P. & Ehrlich, S. (1992). *Teaching American English Pronunciation*. Hong Kong: Oxford University Press.

Brown, G. & Yule, G. (1984). *Teaching the Spoken Language. An approach based on the analysis of conversational English*. Great Britain: Cambridge University Press.

Celce-Murcia, M., Brinton, D. & Goodwin, J. (1996). *Teaching Pronunciation. A Reference for Teachers of English to Speakers of Other Languages*. USA: Cambridge University Press.

Hewings, M. & Goldstein, S. (1998). *Pronunciation Plus-Practice through Interaction*. USA: Cambridge University Press.

Jenkins, J. (2000). *The Phonology of English as an International Language*. Hong Kong: Oxford University Press.

Kelly, G. (2000). *How to Teach Pronunciation*. Malaysia: Longman.

Kenworthy, J. (1987). *Teaching English Pronunciation*. USA: Longman.

Morley, J. (Editor) (1994). *Pronunciation Pedagogy and Theory: New Views, New Directions*. Alexandria, VA: TESOL Publication.

O'Connor, J. D. & Fletcher, C. (1989). *Sounds English. A Pronunciation Practice Book*. England: Longman.

Ortiz Lira, H. (1997). "The 37 essential weak form words". In: *PG Bulletin. The Bulletin of the Teachers of English Phonetics*. Santiago, Chile. N° 7, 24-36.

Pennington, M. (1994). Recent Research in L2 Phonology: Implications for Practice. In: J. Morley (Editor). *Pronunciation Pedagogy and Theory: New Views, New Directions*. (pp. 92-108). Alexandria, VA: TESOL Publication.

Quilis, A. & Fernández, J. (1979). *Curso de Fonética y Fonología Españolas para Estudiantes Angloamericanos*. Madrid: Consejo Superior de Investigaciones Científicas. Instituto Miguel de Cervantes.

Stockwell, R. & Bowen, J.D. (1969). *The Sounds of English and Spanish*. Chicago & London: The University of Chicago Press.

Underhill, A. (1994). *Sound Foundations*. Great Britain: Heinemann.

Underhill, N. (1989). *Testing Spoken Language. A handbook of oral testing techniques*. Great Britain: Cambridge University Press.

Underwood, M. (1996). *Teaching Listening*. USA: Longman.